Section I (Amendments to the Specification)

Please amend the specification as follows:

Please replace the paragraph bridging pages 7 and 8 (beginning "In the method ..." and ending "...Plant Journal **19** (1999), 209-216") with the following new replacement paragraph:

In the method according to the invention the ATP or ADP concentration in cell compartments can also be influenced by introducing a protein (polypeptide) which is not naturally available in the respective organism. In order to obtain the localization of the protein in the desired cell compartment it may be favorable for the protein to have a signal peptide, so that it can be transported into certain cell compartments of a plant cell. The person skilled in the art is familiar with suitable signal peptides and methods of linking the signal peptides with a desired protein. For example, reference is made to the signal peptide of amylase from barley as to the apoplast (Düring *et al.*, Plant Journal **3** (1993), 587-598), to a murine signal peptide, to the combination or murine signal peptide and the KDEL (SEQ ID NO: 1) KDEL-ER retention signal as regards ER (Artsaenko *et al.*, Molecular Breeding **4** (1998), 313-319), to the targeting signal of a mammal-alpha-2,5-sialyltransferase regarding the Golgi apparatus (Wee *et al.*, Plant Cell IV (1998), 1759-1768), to the vacuolar localizing signal of a vacuolar chitinase from cucumber as regards the vacuoles (Neuhaus *et al.*, Proc. Natl. Acad. Sci. U.S.A. **88** (1991), 10362-10366), to the ferredoxin transit peptide as to the chloroplasts and plastids, and to the transit peptide of tryptophanyl tRNA synthethase from yeast regarding the mitochondria (Schmitz and Lonsdale, Plant Cell **1** (1998), 783-791). Basically, the protein involved in the subcellular distribution of ATP and APD can be administered by various methods, e.g. via media, such as the culture media, of a plant or of parts thereof, in particular plant cells. However, as pointed out above already, it is preferred to administer the protein to plants or parts thereof in the form of a nucleic acid coding for it, e.g. DNA or RNA. For this purpose, it is necessary for the nucleic acid to be available in an expression vector or to be ligated with sequences thereof. In this connection, it can be favorable for this vector or these sequences to enable an expression of the nucleic acid in cell compartments. Such expression vectors or sequences are known to the person skilled in the art. For example, reference is made to Svab *et al.*, Proc. Natl. Acad. Sci. U.S.A. **87** (1990),

8526-8530; Khan and Maliga, Nature Biotechnology **17** (1999), 910-915; and Sidorov *et al.*, Plant Journal **19** (1999), 209-216.

Please replace the paragraph at page 12, lines 18-24 (beginning "In a preferred ..." and ending "...as localization signals") with the following new replacement paragraph:

In a preferred embodiment, the expression vectors used according to the invention contain localization signals for localization in cell compartments, in particular in endoplasmic reticulum (ER), apoplasts, Golgi apparatus, plastids, peroxisomes, mitochondria and/or vacuoles. Reference is made to the above statements on the signal peptides. The KDEL (SEQ ID NO: 1) KDEL-ER targeting peptide, the Golgi localization signal of ß-1,2-N-acetylglucosamine transferase (Gntl), the transit peptide from the small subunit of ribulose bisphosphate carboxylase and/or the vacuolary targeting signal SKNPIN (SEQ ID NO: 2) are particularly preferred as localization signals.

Please replace the paragraph at page 16, lines 3-17 (beginning "For this test ..." and ending "... vector pLH9000Hyg/scFv was obtained") with the following new replacement paragraph:

For this test, the plants described in Example 1 were hyper-transformed with a gene construct which codes for an scFv antibody. The binary vector pLH9000Hyg was obtained by removing by means of restriction digest with XbaI and SpeI the kanamycin resistance-mediating expression cassette of the binary vector pLH9000 (L. Hausmann and R. Töpfer, *Vorträge Pflanzenzüchtung* [Lectures on Plant cultivation] **45** (1999) 155-172). In its place, a hygromycin resistance-mediating expression cassette was inserted which had been produced by amplification by PCR with primers

TCT AGA GAT CAT GAG CGG AGA ATT AA (SEQ ID NO: 3)
and
ACT AGT AAT TCC CAT CTT GAA AGA AA (SEQ ID NO: 4)

from the binary vector BinHygTOp (GenBank Gl:886843) and subsequent restriction digest using XbaI and SpeI. An expression cassette containing the gene (SEQ ID NO: 5) for a single-

chain (scFv) antibody (SEQ ID NO: 6) having the sequence shown in figure 2 under the control of the CAMV 35S promoter was ligated into the opened SalI restriction site of the binary vector pLH9000Hyg. The transformation vector pLH9000Hyg/scFv was obtained.

Please enter the enclosed Sequence Listing (submitted herewith with a diskette, paper copy of the sequence listing and an accompanying statement under 37 CFR 1.821 that such computer readable form and paper copy are identical) into the specification of the application.